

What is claimed is:

1. A binderless storage phosphor panel or screen comprising a vacuum deposited phosphor layer (1) on a support (2), characterized in that said support includes a layer of amorphous carbon (23).
- 5 2. A binderless phosphor panel or screen according to claim 1, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.
3. A binderless phosphor panel or screen according to claim 1,
10 wherein said support further includes a reflective auxiliary layer (22).
4. A binderless phosphor panel or screen according to claim 2, wherein said support further includes a reflective auxiliary layer (22).
- 15 5. A binderless phosphor panel or screen according to claim 3, wherein said reflective auxiliary layer (22) is an aluminum layer with a thickness between 0.2 μm and 200 μm .
6. A binderless phosphor panel or screen according to claim 4, wherein said reflective auxiliary layer (22) is an aluminum layer
20 with a thickness between 0.2 μm and 200 μm .
7. A binderless phosphor panel or screen according to claim 3, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.
- 25 8. A binderless phosphor panel or screen according to claim 4, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

9. A binderless phosphor panel or screen according to claim 5, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

5 10. A binderless phosphor panel or screen according to claim 6, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

10 11. A binderless phosphor panel or screen according to claim 7, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

15 12. A binderless phosphor panel or screen according to claim 8, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

20 13. A binderless phosphor panel or screen according to claim 9, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

14. A binderless phosphor panel or screen according to claim 10, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

25 15. A binderless phosphor panel or screen according to claim 1, wherein said phosphor layer comprises a needle shaped CsX:Eu phosphor, wherein X represents a halide selected from the group consisting of Br and Cl.

30 16. A binderless phosphor panel or screen according to claim 2, wherein said phosphor layer comprises a needle shaped CsX:Eu

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phosphor, wherein X represents a halide selected from the group consisting of Br and Cl.

17. A binderless phosphor panel or screen according to claim 3,
wherein said phosphor layer comprises a needle shaped CsX:Eu
5 phosphor, wherein X represents a halide selected from the group
consisting of Br and Cl.

18. A binderless phosphor panel or screen according to claim 4,
wherein said phosphor layer comprises a needle shaped CsX:Eu
phosphor, wherein X represents a halide selected from the group
10 consisting of Br and Cl.

19. A binderless phosphor panel or screen according to claim 5,
wherein said phosphor layer comprises a needle shaped CsX:Eu
phosphor, wherein X represents a halide selected from the group
consisting of Br and Cl.

15 20. A binderless phosphor panel or screen according to claim 6,
wherein said phosphor layer comprises a needle shaped CsX:Eu
phosphor, wherein X represents a halide selected from the group
consisting of Br and Cl.

20 21. A binderless phosphor panel or screen according to claim 7,
wherein said phosphor layer comprises a needle shaped CsX:Eu
phosphor, wherein X represents a halide selected from the group
consisting of Br and Cl.

22. A binderless phosphor panel or screen according to claim 8,
wherein said phosphor layer comprises a needle shaped CsX:Eu
25 phosphor, wherein X represents a halide selected from the group
consisting of Br and Cl.

23. A binderless phosphor panel or screen according to claim 9,
wherein said phosphor layer comprises a needle shaped CsX:Eu
phosphor, wherein X represents a halide selected from the group
30 consisting of Br and Cl.

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24. A binderless phosphor panel or screen according to claim 10, wherein said phosphor layer comprises a needle shaped CsX:Eu phosphor, wherein X represents a halide selected from the group consisting of Br and Cl.

5 25. A binderless phosphor panel or screen according to claim 11, wherein said phosphor layer comprises a needle shaped CsX:Eu phosphor, wherein X represents a halide selected from the group consisting of Br and Cl.

10 26. A binderless phosphor panel or screen according to claim 12, wherein said phosphor layer comprises a needle shaped CsX:Eu phosphor, wherein X represents a halide selected from the group consisting of Br and Cl.

15 27. A binderless phosphor panel or screen according to claim 13, wherein said phosphor layer comprises a needle shaped CsX:Eu phosphor, wherein X represents a halide selected from the group consisting of Br and Cl.

20 28. A binderless phosphor panel or screen according to claim 14, wherein said phosphor layer comprises a needle shaped CsX:Eu phosphor, wherein X represents a halide selected from the group consisting of Br and Cl.

25 29. A method for producing a binderless storage phosphor panel comprising the steps of :
- providing an amorphous carbon film,
- vacuum depositing a storage phosphor layer on said amorphous carbon film and, optionally,
- laminating a polymeric film on the side of the amorphous carbon film not covered by said phosphor.

30 30. A method according to claim 29, wherein before said step of vacuum depositing a storage phosphor layer on said amorphous carbon film a step of applying a specularly reflecting layer on said amorphous carbon film is included.

31. Use in mammography of a screen or panel according to claim 1.
32. Use in mammography of a screen or panel according to claim 2.
33. Use in mammography of a screen or panel according to claim 3.
34. Use in mammography of a screen or panel according to claim 4.
- 5 35. Use in mammography of a screen or panel according to claim 5.
36. Use in mammography of a screen or panel according to claim 6.
37. Use in mammography of a screen or panel according to claim 7.
38. Use in mammography of a screen or panel according to claim 8.
39. Use in mammography of a screen or panel according to claim 9.
- 10 40. Use in mammography of a screen or panel according to claim 10.
41. Use in mammography of a screen or panel according to claim 11.
42. Use in mammography of a screen or panel according to claim 12.
43. Use in mammography of a screen or panel according to claim 13.
44. Use in mammography of a screen or panel according to claim 14.
- 15 45. Use in mammography of a screen or panel according to claim 15.
46. Use in mammography of a screen or panel according to claim 16.
47. Use in mammography of a screen or panel according to claim 17.
48. Use in mammography of a screen or panel according to claim 21.
49. Use in mammography of a screen or panel according to claim 23.

50. Use in mammography of a screen or panel according to claim 25.

51. Use in mammography of a screen or panel according to claim 27.